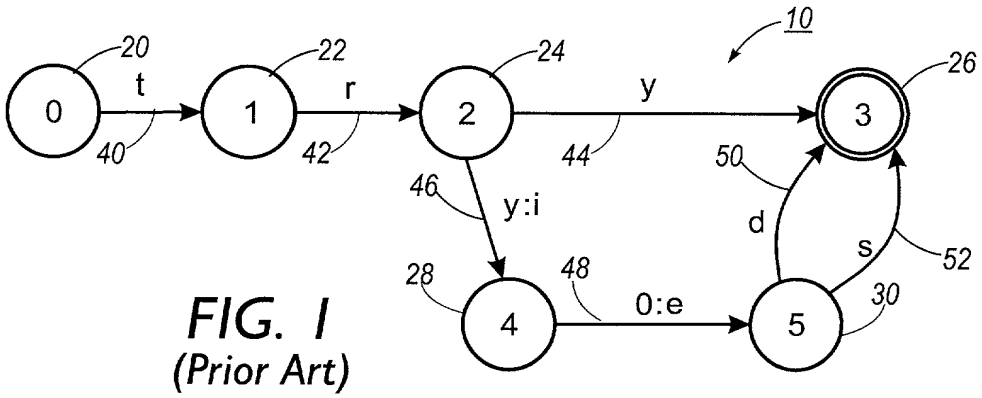

FIG. 1
(Prior Art)

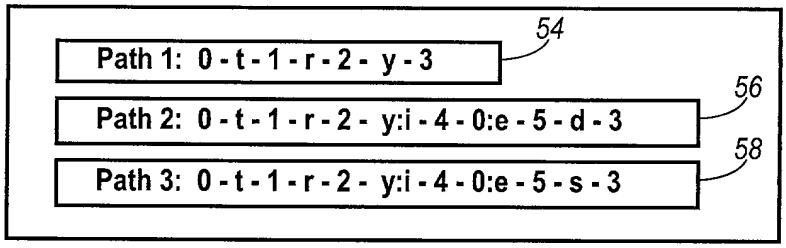

FIG. 2
(Prior Art)

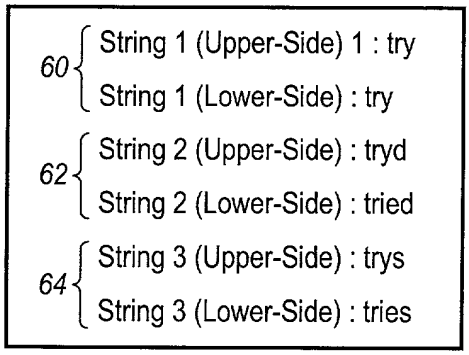

FIG. 3
(Prior Art)

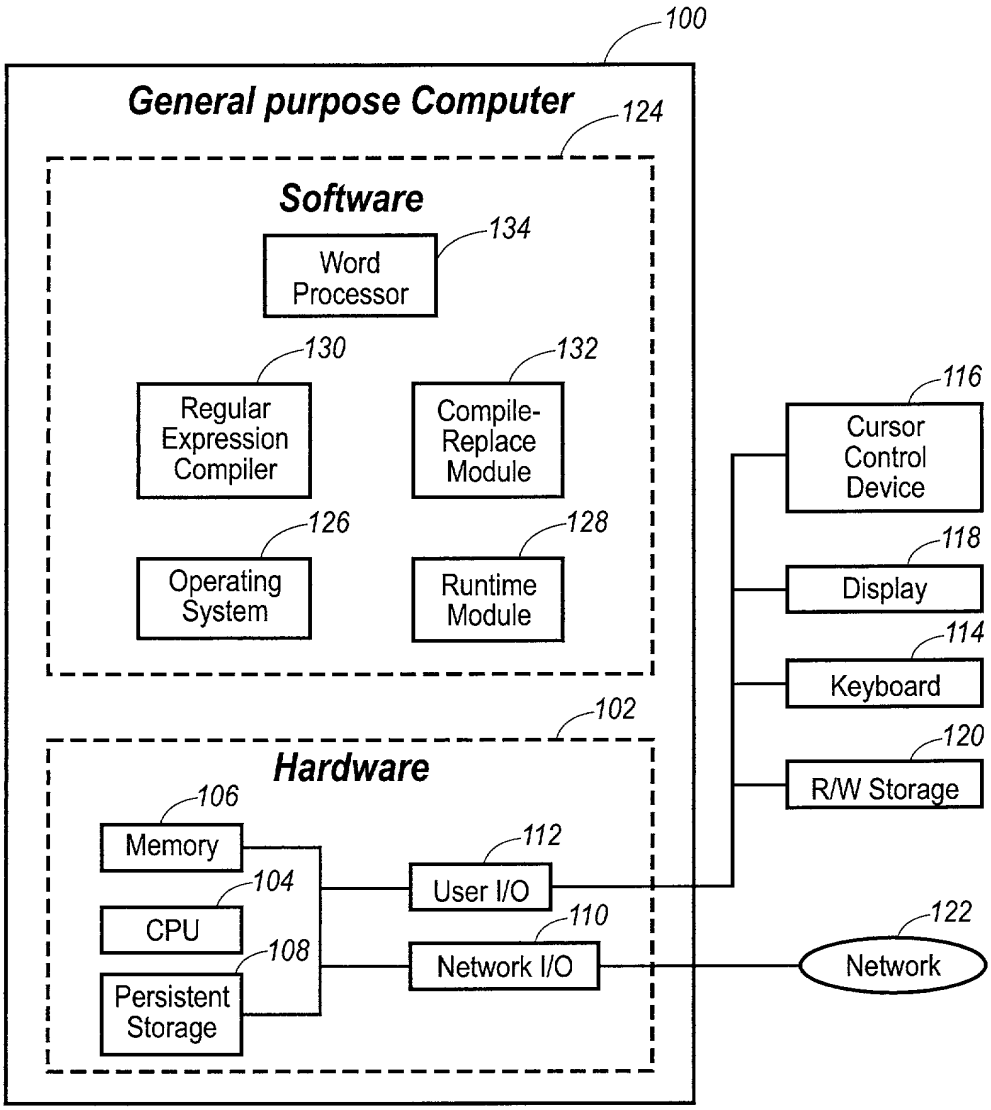
100
General purpose Computer
124
Software
134
Word Processor
130
Regular Expression Compiler
132
Compile-Replace Module
126
Operating System
128
Runtime Module
102
Hardware
106
Memory
104
CPU
108
Persistent Storage
112
User I/O
110
Network I/O
116
Cursor Control Device
118
Display
114
Keyboard
120
R/W Storage
122
Network

FIG. 4

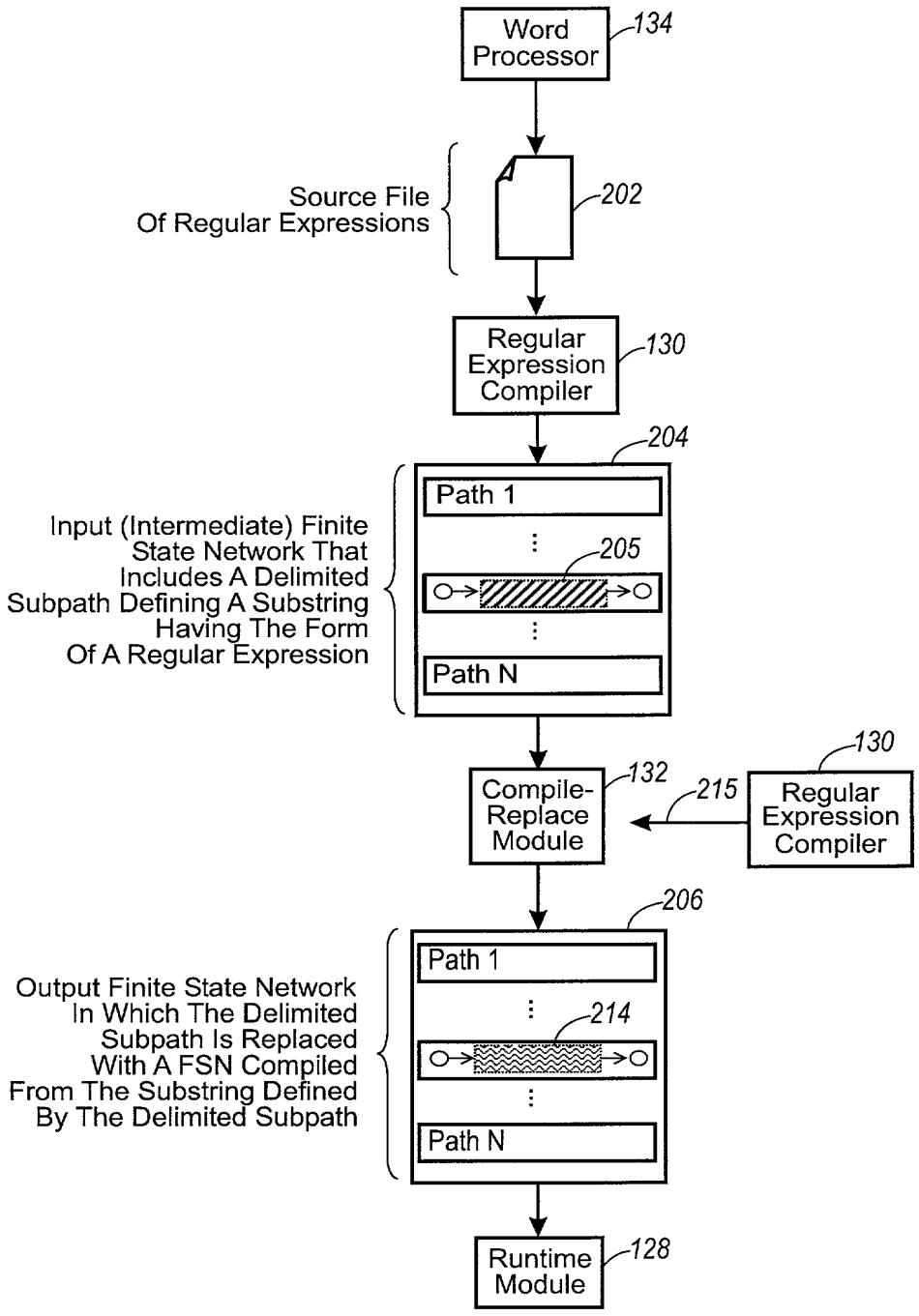
Word Processor
134
Source File Of Regular Expressions
202
Regular Expression Compiler
130
204
Path 1
205
Path N
Input (Intermediate) Finite State Network That Includes A Delimited Subpath Defining A Substring Having The Form Of A Regular Expression
130
Compile-Replace Module
132
215
Regular Expression Compiler
206
Path 1
214
Path N
Output Finite State Network In Which The Delimited Subpath Is Replaced With A FSN Compiled From The Substring Defined By The Delimited Subpath
Runtime Module
128

FIG. 5

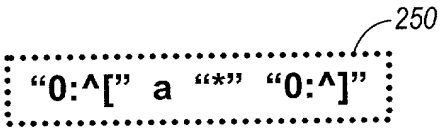
250
"0:^[" a "*" "0:^]"

FIG. 6

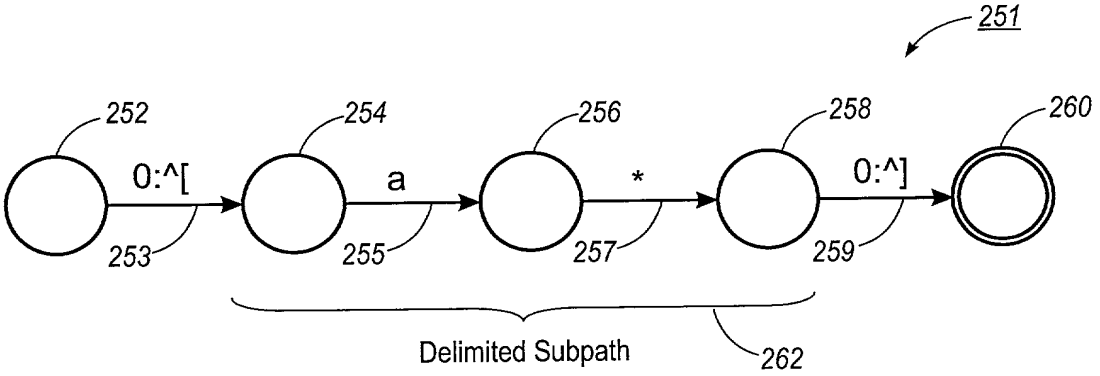
251
252
254
256
258
260
0:^[
a
*
0:^]
253
255
257
259
Delimited Subpath
262

FIG. 7

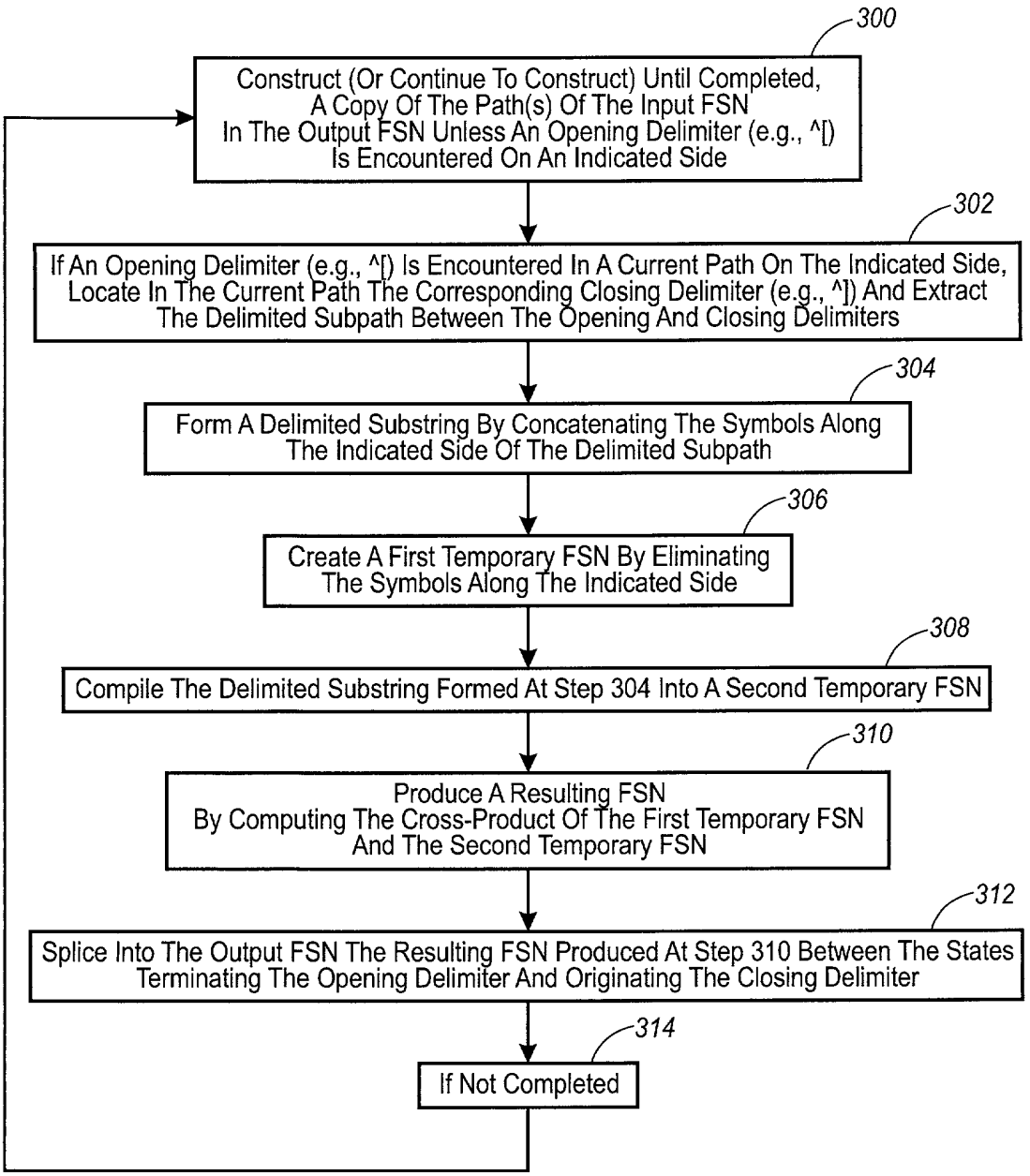
300
Construct (Or Continue To Construct) Until Completed, A Copy Of The Path(s) Of The Input FSN In The Output FSN Unless An Opening Delimiter (e.g., ^[) Is Encountered On An Indicated Side
302
If An Opening Delimiter (e.g., ^[) Is Encountered In A Current Path On The Indicated Side, Locate In The Current Path The Corresponding Closing Delimiter (e.g., ^]) And Extract The Delimited Subpath Between The Opening And Closing Delimiters
304
Form A Delimited Substring By Concatenating The Symbols Along The Indicated Side Of The Delimited Subpath
306
Create A First Temporary FSN By Eliminating The Symbols Along The Indicated Side
308
Compile The Delimited Substring Formed At Step 304 Into A Second Temporary FSN
310
Produce A Resulting FSN By Computing The Cross-Product Of The First Temporary FSN And The Second Temporary FSN
312
Splice Into The Output FSN The Resulting FSN Produced At Step 310 Between The States Terminating The Opening Delimiter And Originating The Closing Delimiter
314
If Not Completed

FIG. 8

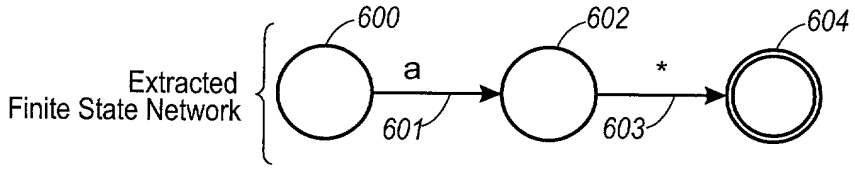

FIG. 9A

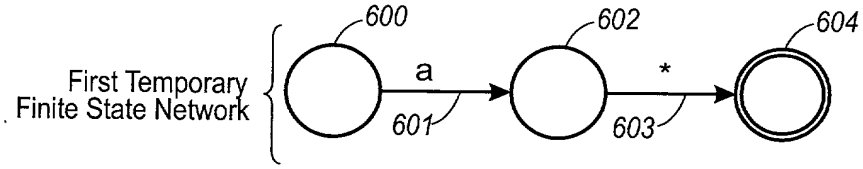

FIG. 9B

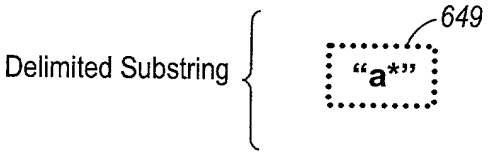

FIG. 10A

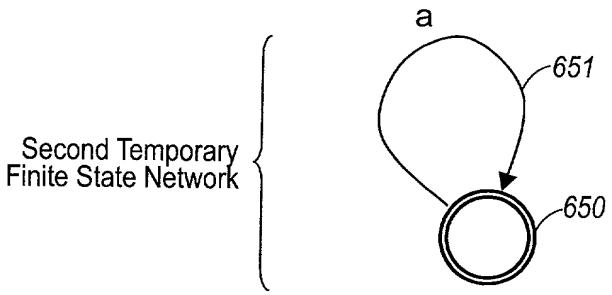

FIG. 10B

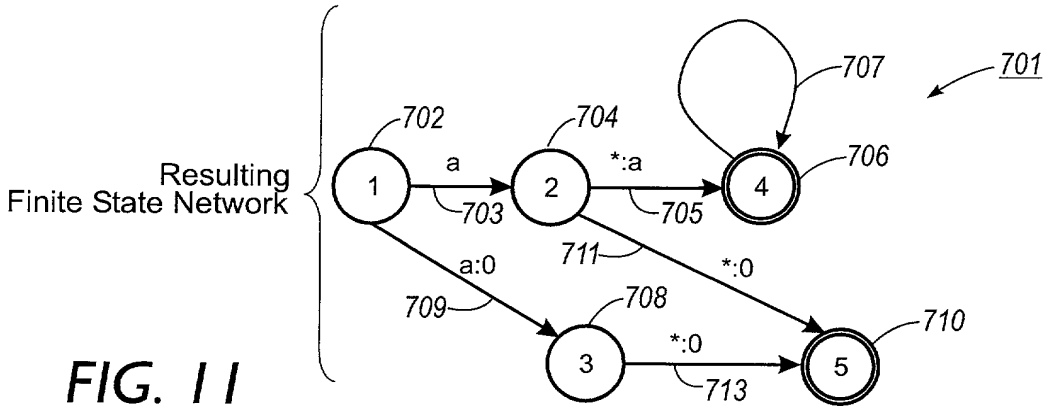

FIG. 11

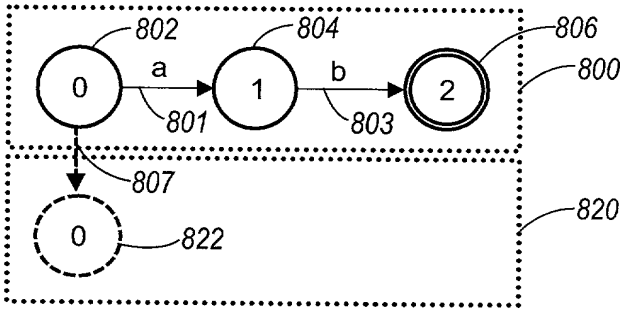

FIG. 12

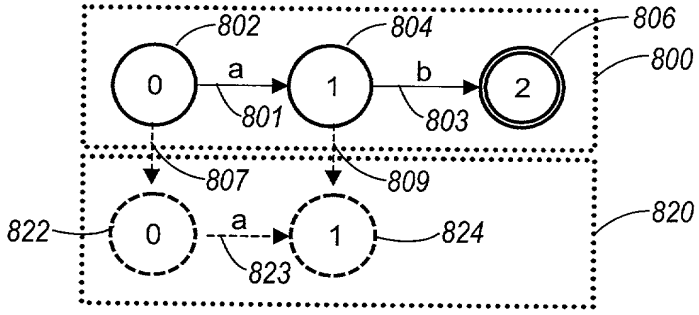

FIG. 13

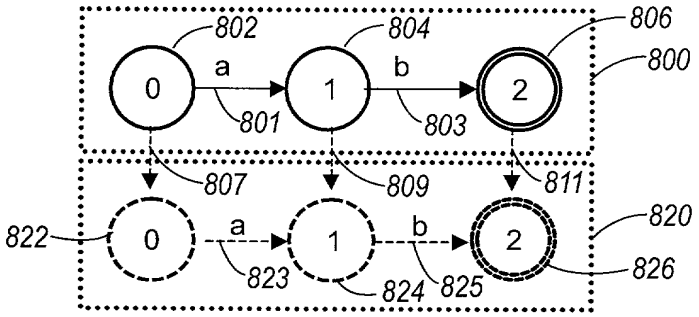

FIG. 14

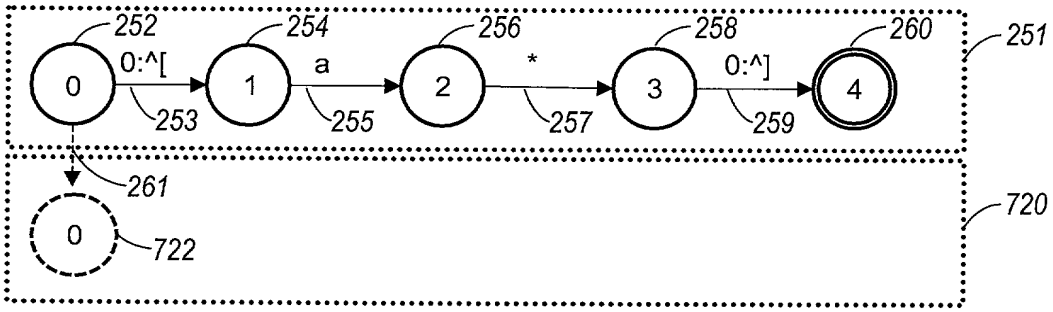

FIG. 15

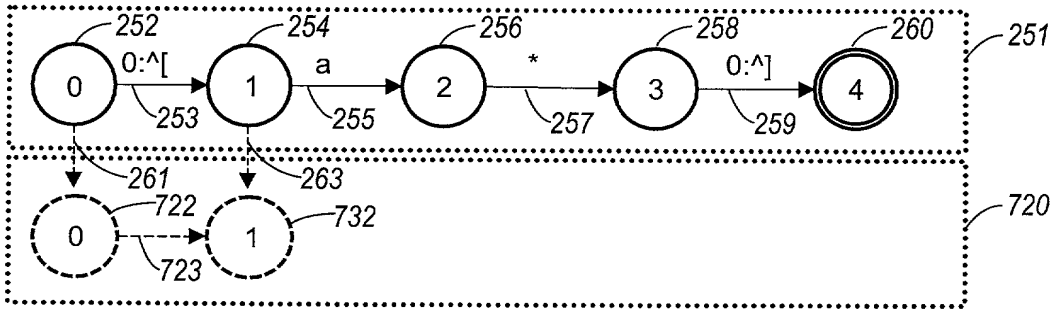

FIG. 16

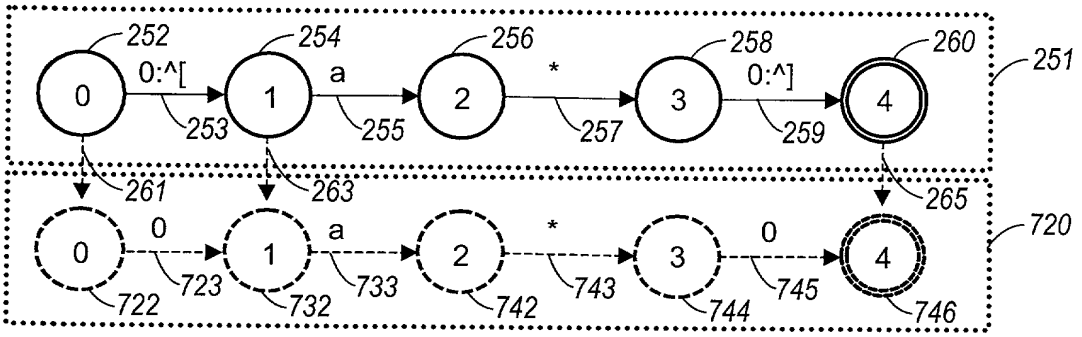
252
254
256
258
260
251
0
0:^[
1
a
2
*
3
0:^]
4
253
255
257
259
261
263
265
0
1
2
3
4
720
0
a
*
0
723
733
743
745
722
732
742
744
746

FIG. 17

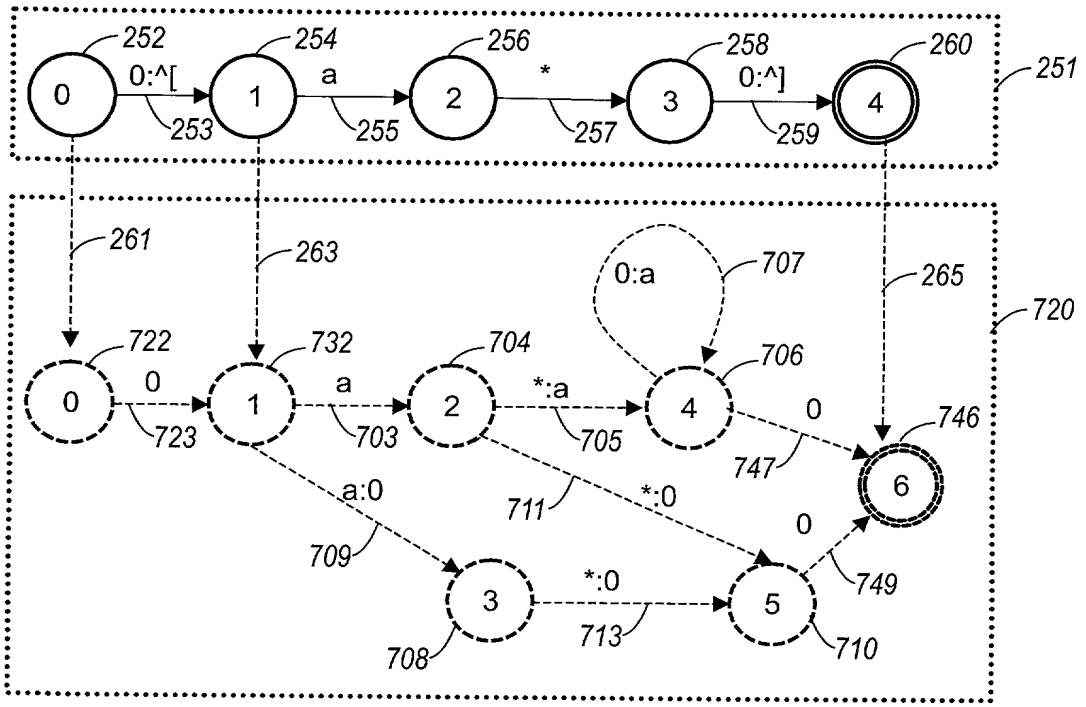
252
254
256
258
260
251
0
0:^[
1
a
2
*
3
0:^]
4
253
255
257
259
261
263
265
720
0:a
707
722
732
704
706
0
1
2
*:a
4
0
746
723
703
705
747
6
a:0
711
*:0
709
0
749
3
*:0
5
708
713
710

FIG. 18